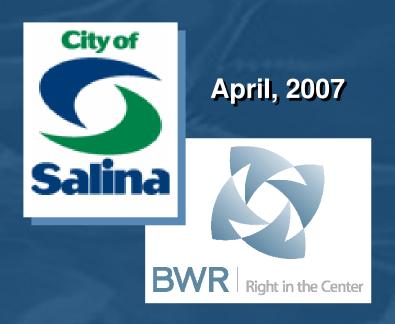
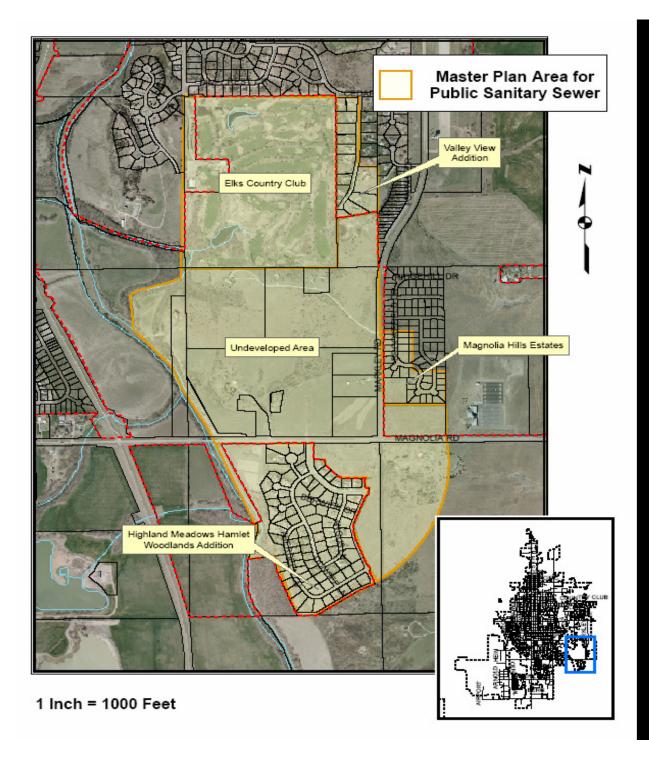
Markley - Magnolia - Valley View Salina, Kansas

Sanitary Sewer Master Plan



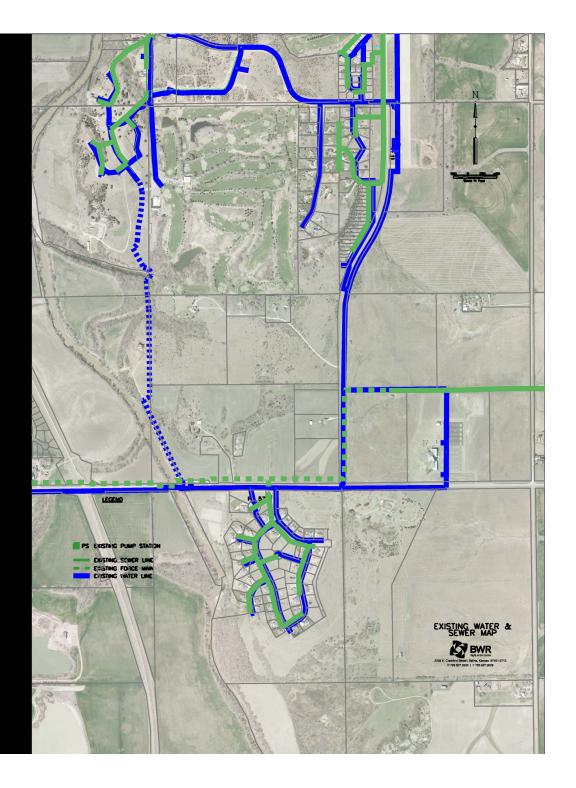
What is a Utility Master Plan?

- Establishes full scope of city water and sanitary sewer improvements needed.
- Estimates cost of improvements.
- Determines long range impacts.
- Identifies economy of scale (capital/rate-based system).
- Allows City to formulate financing options for developers/property owners.
- Finds efficiencies of design/phasing/maintenance.
- Establishes critical mass needed for development.



Markley /
Magnolia /
Valley View
Areas

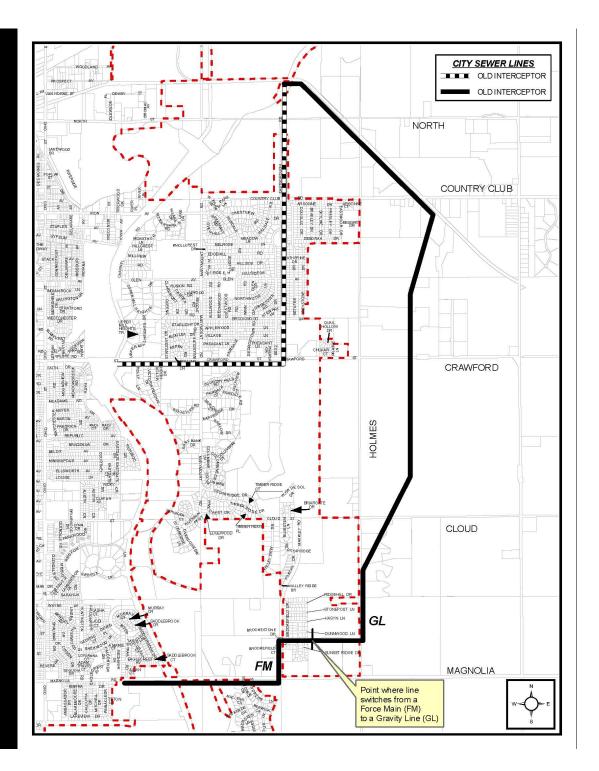
Existing Sewer / Water



NORTH ST COLUMBIA AV X ASH ST COUNTRY CLUB IRON AV STAPLER AV CHANNEL RD GYPSUM AV MELROSE LN EDGEHILL RD HILLSIDE DR GLEN AV EDISON PL QUEENS RD WILBRE RD CRAWFORDST FAITH DR MCADAMS RD MARTIN AV REPUBLI BELOIT A MARKLEY REPUBLIC AV BELOIT AV MINNEAPOLIS AV ELLSWORTH AV KIRWIN AV CLOUD ST RED FOX LN MARC ST LEWIS ST SARAH LN SIERRA DR LAKEVIEW DR CAROLINA DR **Existing Growth Areas** PRIMARY SECONDARY

Existing Growth Area

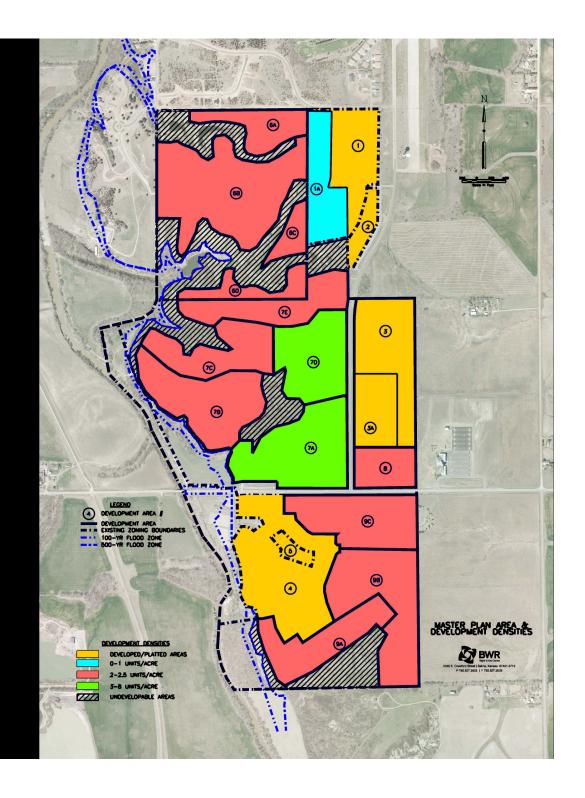
New Interceptor

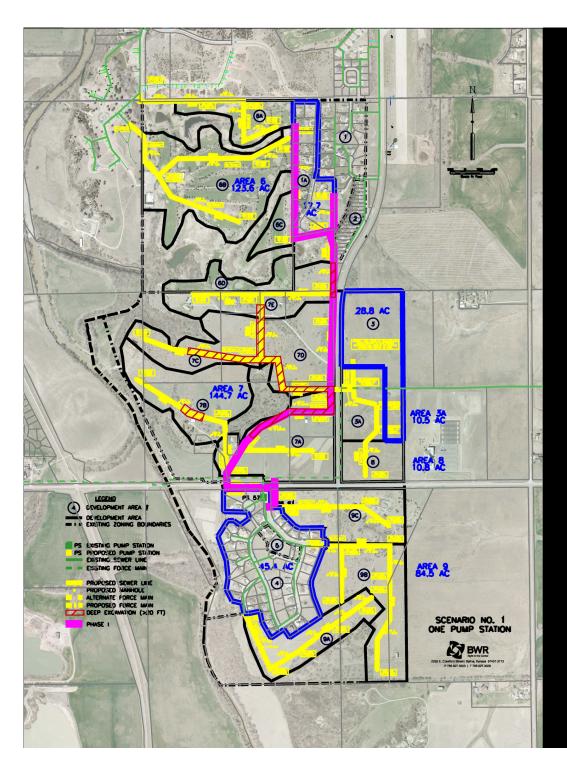


PROSPECT AV Existing Growth Areas DEWEY ST COLUMBIA AV COLUMBIA AV KANSAS AV AV CRESTVIEW DR DEBORAH DR EDGEHILL RD East Salina Master Plan EDISON PL QUEENS RD ELLSWORTH AV Land Use Residential - Low Density Residential - Medium Density Residential - High Density Commercial - Retail Commercial - Mixed/Service Light Industrial/Bs Park Public and Quasi-Public Open Space Parks and Recreation Residential - Low Density Residential - Medium Density Commercial - Retail Light Industrial/Bs Park LAKEVIEW DR Industrial Open Space Parks and Recreation Residential - Low Density Light Industrial/Bs Park Industrial

Future Land Use

Density Map





1 Pump Station

ENGINEERS OPINION OF PROBABLE PROJECT COSTS

Master Plan: Markley-Magnolia-Valley View Sanitary Sewer System Salina, Kansas April 2007

Scenario No. 1 - One Pump Station

Map Area	Item	Total	
1A	Gravity Sewer	\$	313,150.00
4 & 5	Gravity Sewer & Pump Station	\$	474,650.00
7A	Gravity Sewer	\$	281,100.00
7D	Gravity Sewer	\$	65,550.00
	20% Contingency 25% Contractor Overhead & Profit	\$ \$	226,890.00 340,335.00
	TOTAL CONSTRUCTION COST	\$ 1,701,675.00	
	LIFE CYCLE COST	\$	146,810.00

PHASE I 3 70 (3) LEGEND DEVELOPMENT AREA **®** PS EXISTING PUMP STATION PS PROPOSED PUMP STATION EXISTING SEWER LINE EXISTING FORCE MAIN PROPOSED SEWER LINE PROPOSED WARHOLE ALTERNATE FORCE MAIN PROPOSED FURCE MAIN DEEP EXCAMATION (>10 FT) SCENARIO NO. 2 TWO PUMP STATIONS PHASE II

2 Pump Stations

ENGINEERS OPINION OF PROBABLE PROJECT COSTS Master Plan: Markley-Magnolia-Valley View Sanitary Sewer System Salina, Kansas April 2007

Scenario No. 2 - Two Pump Stations

Phase	Map Area	Item		Total
Phase I	1A	Gravity Sewer	\$	313,150.00
	3	Force Main Piping	\$	57,250.00
	7A	Pump Station (Includes Dewatering, Electrical, etc) (Cost Range = \$170,000 to \$300,000)	\$	300,000.00
	7D	Gravity Sewer	\$	65,550.00
		20% Contingency 25% Contractor Overhead & Profit	\$ \$	147,190.00 220,785.00
		SUBTOTAL - PHASE I	\$	1,103,925.00
Phase II	4 & 5	Gravity Sewer & Pump Station	\$	322,300.00
		20% Contingency	\$	64,460.00
		25% Contractor Overhead & Profit	\$	96,690.00
		SUBTOTAL - PHASE I	\$	483,450.00
		TOTAL CONSTRUCTION COST	\$1,392.375 to	o \$1,587,375
		LIFE CYCLE COST		3 to \$141,719

In Summary...

Scenario 1: One Pump Station

Advantages

- Less operation & maintenance.
- Less potential sources for odor.

Disadvantages

- More gravity line to install (initially).
- Higher cost.

TOTAL CONSTRUCTION COST: TOTAL LIFE CYCLE COST:

\$1,701,675.00 \$146,810.00

In Summary...

Scenario 2: Two Pump Stations

Advantages

- Phased approach.
- Lower cost.

Disadvantages

- More operation & maintenance.
- More potential sources of odor.

TOTAL CONSTRUCTION COST: TOTAL LIFE CYCLE COST:

\$1,392,375 — \$1,587,375 \$124,898 — \$141,719

Financing Options

The \$1.4 - 1.7 upfront construction cost would be financed by the City through Water and Wastewater Funds or the sale of GO bonds. The City's investment could be recovered in one of two ways:

COST RECOVERY ORDINANCE

The City could establish a cost recovery area with a per acre hook up charge that would be payable at the time a property within the benefit area connected to the pump station system.

Advantages: Easy to calculate and administer. If property develops quickly the City recovers its costs sooner.

<u>Disadvantages:</u> A large, lump sum hook up charge may be difficult for some property owners to pay.

• SPECIAL ASSESSMENT BENEFIT DISTRICT

The City could initiate the creation of a benefit district that would include all of the property served by the pump station with each property owner's assessment being payable over 15 years.

<u>Advantages:</u> More affordable for individual lot owners served by the pump station by extending payments over 15 years. Sanitary sewer benefit districts can not be protested. <u>Disadvantages:</u> Only property that is platted and within city limits may initially be included in the benefit district. Property outside the city may be added to the district under K.S.A. 12-6a19 when it develops and connects to the system. With a 15 year payment schedule it will take a longer time for the City to recover its upfront investment.

Only a small portion of the City's investment would be recovered initially.

